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FINAL DRAFT 8/16/73

#### PUBLIC HEALTH REGULATIONS

Department of Health State of Hawaii Chapter 37-A Water Quality Standards

Under and by virtue of the provisions of /Sections 46-13 and 46-16,

Revised Laws of Hawaii 1955, Chapter 342, Hawaii Revised Statutes, and the Federal

Water Pollution Control Act Amendments, 1972 PL 92-500, and all other applicable

laws, Chapter 37-A of the Public Health Regulations, Department of Health, State of

Hawaii, is hereby amended to read as follows:

### Table of Contents

### Sections:

- 1: Purpose and Scope
- 2. Definitions
- 3. Classification of Water Uses
- 4. Zones of Mixing
- 5. Classification and Establishment of Water Areas
- 6. Water Quality Standards
- 7. Establishment, Renewal and Termination of Zones of Mixing
- 8. Severability
- 9. Effective Date
- Section 1. PURPOSE AND SCOPE

Pursuant to the authority granted by Section 46-16, Revised Laws of Hawaii

1955.7 Chapter 342, Part III, Section 342-32 Hawaii Revised Statutes, the Director of

Health of the State of Hawaii appointed a Master to divide the waters of the State into areas and to recommend to the Director standards of water quality for such water areas. Except as modified in this Chapter, the standards recommended by the Master are hereby adopted. The standards adopted, hereinafter set forth, shall be the standards of water quality for the purposes of Chapter 37, Public Health Regulations, Department of Health, State of Hawaii, and shall be enforced and administered as provided therein.

#### Section 2. DEFINITIONS

- A. "Near shore waters" means all coastal waters lying within a defined reef area, all waters of a depth less than ten fathoms, or waters up to a distance of 1,000 feet off-shore if there is no defined reef area and if the depth is greater than ten fathoms.
- B. "Off-shore waters" means all coastal waters beyond the limits defined for "near shore waters."
- C. "Coastal waters" includes "near shore waters," "off-shore waters" and all [those brackish waters, fresh waters and salt] waters that are subject to the ebb and flow of the tide.

#### Section 3. CLASSIFICATION OF WATER USES

A. Classification of Coastal Water Uses

Coastal waters are classified in accordance with the uses to be protected in each class as follows:

1. Class AA waters

The uses to be protected in this class of waters are oceanographic research, the support and propagation of shellfish and other marine

life, conservation of coral reefs and wilderness areas, compatible recreation and aesthetic enjoyment.

It is the objective of this class of waters that they remain in as nearly their natural, pristine state as possible with an absolute minimum of pollution from any source. To the extent possible, the wilderness character of such areas shall be protected. No zones of mixing will be permitted in these waters.

The classification of any water area as Class AA shall not preclude other uses of such waters compatible with these objectives and in conformance with the standards applicable to them.

### 2. Class A waters

The uses to be protected in this class of waters are recreational[,]

(including fishing, swimming, bathing and other water-contact

sports)[and], aesthetic enjoyment [.] and the support and propagation of aquatic life.

It is the objective for this class of waters that their use for recreational purposes and aesthetic enjoyment not be limited in any way. Such waters shall be kept clean of any trash, solid materials or oils and shall not act as receiving waters for any effluent which has not received the best [practicable] degree of treatment or control practicable under existing technology and compatible with the standards established for this class.

#### 3. Class B waters

The uses to be protected in this class of waters are small boat harbors, commercial [.] and industrial shipping, bait fishing, compatible recreation, the support and propagation of aquatic life, and aesthetic enjoyment.

It is the objective for this class of waters that discharges of any pollutant be controlled to the maximum degree possible and that sewage and industrial effluents receive the best practicable treatment or control compatible [for] with the standards established for this class.

The Class B designation shall apply only to a limited area next

to boat docking facilities in bays and harbors. The rest of the water area in such bay or harbor shall be Class A unless\_given some other specific designation in Section 5.

### Classification of Fresh Water Uses

Fresh waters are classified in accordance with the uses to be protected as follows:

#### Class 1 Waters

The uses to be protected in this class of waters are drinking water supply [and], food processing [.], the support and propagation of aquatic life, and compatible recreation.

It is the objective of this class of waters that they remain in as nearly the natural state as possible with an absolute minimum of pollution from any source. To the extent possible, the wilderness character of such areas shall be protected. Waste discharges into these waters are prohibited.

#### 2. Class 2 Waters

The uses to be protected in this class of waters are bathing, swimming, recreation, growth and propagation of fish and other the support and propagation of aquatic life compatible recreation and agricultural and industrial water supply.

It is the objective for this class of waters that their use for recreational purposes, propagation of fish and other aquatic life and agricultural and industrial water supply not be limited in any way. Such waters shall be kept clean of trash, solid materials or oils and shall not act as receiving waters for any effluent which has not received the best practicable treatment compatible with the standards established for this class.

### Section 4. ZONES OF MIXING

Zones of Mixing for the assimilation of municipal, agricultural and

industrial discharges which have received the best practicable treatment or control are recognized as necessary.

It is the objective of this limited zone to provide for a current realistic means of control over such discharges and at the same time achieve the highest attainable level of water quality.

### Section 5. CLASSIFICATION AND ESTABLISHMENT OF WATER AREAS

The following classification of water uses shall apply to the following areas.

- A. Coastal Water Areas and Non-Tidal Brackish and Saline Surface Water Areas
  - 1. Oahu

[\*\*] (a) Class AA waters

Waimanalo Bay from Makapuu Point to the southerly boundary of
Kaiona Beach Park and including the waters surrounding Manana and
Kaohikaipu Islands.

Kaneohe Bay.

Kahana Bay.

Waialua Bay, from Puaena Point to Kaiaka Point.

The near shore waters along Kaena Point for a distance of

3 1/2 miles towards Mokuleia and 3 1/2 miles towards Makua.

That portion of West Loch, Pearl Harbor, lying north of a tangent drawn from Nichols Point to Loch Point

Hanauma Bay.

#### [\*\*] (b) Class A waters

That portion of Waimanalo Bay not designated Class AA.

Kailua Bay, from Wailea Point to Mokapu Point.

The near shore waters between Mokapu Point and Pyramid Rock.

The near shore waters between Makalii Point and Laie Point.

Laie Bay.

All coastal waters and non-tidal brackish and saline surface waters not included in any other class.

#### (c) Class B waters

Kaneohe Bay small boat harbor adjacent to Kaneohe Yacht Club.

Kaneohe Marine Corps Air Station small boat harbor and pier area.

Kewalo Basin.

Ala Wai Boat Harbor.

Pokai Bay small boat harbor.

Haleiwa small boat harbor.

Keehi Lagoon marina areas.

Heeia-Kea small boat harbor.

Campbell Estate Industrial Harbor.

Pearl Harbor - Middle Loch and East Loch /and that portion

of West Loch not classed as AA waters 7.

Honolulu Harbor.

Hickam Harbor.

Kuapa Pond marina areas.

- 2. Kauai
  - (a) Class AA waters

The near shore waters between [Hikinoe] Hikimoe Valley

and Puu Poa Point, including Wainiha Bay and Hanalei Bay.

The near shore waters between Ka Lac Kiki Point to Makahuena

Point.

(b) Class A waters

[All coastal waters of the island of Niihau.]

All coastal waters and non-tidal brackish and saline surface waters
[of the island of Kauai] not included in any other class.

#### (c) Class B waters

Wailua River small boat harbor.

Kukuiula [Bay.] small boat harbor.

Hanapepe Bay small boat harbor.

Kikiaola Harbor.

Nawiliwili [Bay.] Harbor.

Port Allen [, Hanapepe.] Harbor.

### 3. Niihau

(a) Class AA waters

The near shore waters surrounding the island of Niihau.

(b) Class A waters

All coastal waters and non-tidal brackish and saline surface

waters not included in any other class.

## [3.] 4. Molokai

(a) Class AA waters

The near shore waters between the westerly boundary of Haleolono

Harbor and Laau Point.

The near shore waters between Laau Point and Ilio Point and from

Ilio Point to Lamaola Head.

- [\*] The near shore waters from Cape Halawa to the easterly boundary of Kaunakakai Harbor. [except the waters of and from Kalaeloa Harbor, westerly, to and including the near shore waters adjoining the Ahupuaa of Puaahala and Kalokoiki Fish Pond.]
- (b) Class A waters

Halawa Bay.

The near shore waters from the westerly boundary of Kaunakakai Harbor to the easterly boundary of Haleolono Harbor.

All /The/coastal waters and non-tidal brackish and saline surface waters not included in any other class.

(c) Class B waters

Kaunakakai Harbor.

Haleolono Harbor.

Kalaeloa Harbor.

[\*The waters of and from Kalaeloa Harbor, westerly, to and including the near shore waters adjoining the Ahupuaa of Puaahala and Kalokoiki
Fish Pond.]

### [4.] <u>5.</u> Lanai

(a) Class AA waters

[The near shore waters from the westerly boundary of Hulopoe Bay to Kaiolohia Bay.]

All near shore waters not included in any other class.

[The near shore waters from Kamaika Point to the easterly boundary of Manele Bay.]

(b) Class A waters

All /coastal/ off-shore waters and non-tidal brackish and saline surface waters not included in any other class.

Manele Bay.

(c) Class B waters

Manele [Bay.] Harbor.

Kaumalapau Harbor.

[5.] 6. Maui

(a) Class AA waters

The near shore waters between Nakalele Point and Waihee Point.

The near shore waters between Huelo Point and [Naualele Point.]

Puu Olai.

(b) Class A waters

All coastal waters and non-tidal brackish and saline surface waters not included in any other class.

(c) Class B waters

Maalaea small boat harbor.

Lahaina small boat harbor.

Kahului [Bay.] Harbor.

Hana Harbor.

[\*\*6,] 7. Hawaii

(a) Class AA waters

The near shore waters from [Ka Lae]-Leleiwi Point to Waiulaula Point.

(b) Class A waters

The near shore waters from the northern boundary of Kawaihae

Harbor to the southern boundary of Mahukona Harbor.

The near shore waters from Kauilii Point to the westerly boundary of Hilo Harbor.

[The near shore waters from the easterly boundary of Hilo Harbor to Ka Lae, excepting Honaupo Bay.]

All coastal waters <u>and non-tidal brackish and saline surface waters</u> not included in any other class.

#### (c) Class B waters

Honaupo Bay.

Kealakekua Bay.

Keauhou Bay.

Kailua Bay.

Honokahau Bay.

Mahukona Harbor.

Hilo Harbor.

Kawaihae Harbor.

# 8. All other islands of the State

### (a) Class AA waters

shore
All near / waters of all islands not classified in Section 4.A.l.
through 7.

#### (b) Class a waters

All "off-shore" waters and non-tidal brackish and saline surface waters not included in any other class.

- B. Fresh Water Areas
  - 1. Class 1 waters

All sources of fresh surface waters on all islands whether publicly or privately owned, used for domestic, culinary or food processing purposes.

#### 2. Class 2 waters

All natural fresh water streams, canals, ponds, lakes, rivers and all reservoirs resulting from the damming of natural streams on all islands whether publicly or privately owned not included in Class 1.

### Section 6. WATER QUALITY STANDARDS

wastes as follows:

A. Basic Standards Applicable to all Water Areas

All waters shall be free of substances attributable to discharges or

1. Materials that will settle to form objectionable sludge and bottom deposits

2.	[Floating debris, oil, scum and other matter;]
	Floating debris, oil, grease, scum and other floating materials;
3.	Substances[producing objectionable color, odor, taste or turbidity;]
	<u>in</u>
	amounts sufficient to produce taste or odor in the water or detectable
	off-flavor in the flesh of fish, or in amounts sufficient to produce
	objectionable color, turbidity, or other conditions in the receiving waters;

4. [Materials, including radionuclides, in concentrations or combinations which are toxic or which produce undesirable physiological responses in human, fish and other animal life and plants;]

High temperature, biocides, pathogenic organisms,

toxic, corrosive, or other deleterious substances

at

plant or aquatic life or in amounts sufficient to interfere with any

beneficial use of the water. As a minimum, a water shall be evaluated by use of a 96-hour bioassay as described in the most recent edition of

Standard Methods for the Examination of Water and Wastewater. Survival of test organisms shall not be less than that in controls which utilize appropriate experimental water.

Substances and conditions or combinations thereof in concentrations

5. Substances and conditions or combinations thereof in concentrations which produce undesirable aquatic life.

All watershall also be free from soil particles resulting from
erosion on land involved in earthwork, such as the construction of public
works, highway, subdivisions, recreational, commercial, or industrial
developments, or the cultivation and management of agricultural lands[.]

which the erosion occurred or is occurring is being managed in accordance with soil conservation practices acceptable to the Director, and that a comprehensive conservation program is being actively pursued, or that the discharge has received the best practicable treatment or control.

- B. Specific Standards Applicable to Particular Water Areas
  - 1. Microbiological Requirements

The median coliform bacteria shall not exceed Applicable to:

Per 100
Class AA
70 [ml [,] during any 30-day period

nor shall samples exceed 230 per

100 ml at any time.

Applicable to:

The median coliform bacteria shall not exceed Classes A, 1000 per 100 ml, nor shall more than 10% of the 1 and 2 samples exceed 2,400 per 100 ml/. 7 during any

Fecal coliform content shall not exceed an arithmetic average of 200 / / per 100 ml during any 30-day period nor shall more than 10% of the samples exceed 400 [1] per 100 ml in the same time period ...

For such portion of Class 1 waters from which
water is withdrawn for distribution for drinking
water or food processing following simple chlorination,

dial de

Fecal coliform content shall not exceed an

Class B

arithmetic average of 400 / / 7 per 100 ml during any

30-day period nor shall more than 10% of the

samples exceed 1000 / / 7 per 100 ml in the same time period.

To determine compliance with the above microbiological

requirements where a "30-day period" is specified, a minimum of
ten samples shall be collected.

2. pH -- Units

Applicable to:

Class AA

Not more than ½ unit difference from natural conditions but not lower than 8.0 nor higher than 8.5 from other than natural causes. (Not lower

### than 7.0 for fresh tidal waters.)

Not more than ½ unit difference from natural Classes A,B,1 conditions but not lower than 7.0 nor higher than

Not less than 6.5 nor higher than 8.5 Class 2

3. Nutrient Materials Applicable to:

Total phosphorus, not greater than 0.020 mg/1. Class AA

Total phosphorus, not greater than 0.025 mg/1. Class A

Total phosphorus, not greater than 0.030 mg/1. Class B

Total phosphorus, not greater than 0.20 mg/1. Classes 1,2

Total nitrogen, not greater than 0.10 mg/1. Class AA

Total nitrogen, not greater than 0.15 mg/1. Class A

Total nitrogen, not greater than 0.20 mg/1. Class B

. .

4. Dissolved Oxygen (except from natural causes)

Applicable to:

Not less than 6.0 mg/l.

Classes AA, 1

Not less than 5.0 mg/l.

Classes A,2

Not less than 4.5 mg/l.

Class B

5. Total Dissolved Solids, Salinity and Currents Applicable to:

No changes in channels, in basin geometry of

Class AA

the area, or in freshwater influx shall be made

which would cause permanent changes in isohaline

patterns of more than  $\pm 10\%$  of naturally occurring

variation or which would otherwise affect bio-

logical and sedimentological situation. Total

'dissolved solids shall not be below 28,000 mg/l

from other than natural causes.

<u>/\*\*</u>/6. Temperature - Applicable to:

Temperature of receiving waters shall not

. Classes AA, A,

change more than 1.50F from natural conditions.

B,1 and 2

7. Turbidity

Applicable to:

Secchi disc or secchi disc equivalent as

Classes AA,

"extinction coefficient" determinations shall not

A, B, 1 and 2

be altered from natural conditions more than 5%

for Class AA or Class 1 waters, 10% for Class A

or Class 2 waters, or 20% for Class B waters.

8. Radionuclides w. Radioactive materials

Applicable to:

/The concentration of radioactivity in water shall not exceed 1/30th of the MPC values given

/Classes AA,A,/ /B, 1 and 2 \_/

for continuous occupational exposure in National

Bureau of Standards Handbook No. 69. No radio-

nuclide or mixture of radionuclides shall be

present at concentrations greater than those

specified by the U.S. Public Health Services,

Publication No. 956, as revised in 1962, as acceptable

for drinking water.]

Radioactive materials in excess of minimum concen-

Classes AA, A B, 1 and 2

Classes AA, A,

trations which are physically and economically feasible

established in the 1962 Public Health Service Drinking Water

to achieve. In no case shall such material exceed the limits

Standards (or later amendments) or 1/30th of the MPC, values

given for continuous occupational exposure in the National Bureau

of Standards Handbook No. 69. The concentrations in water shall

not result in accumulation of radioactivity in plants or animals.

The concentration of radioactive materials present in

that result in a hazard to humans or harm to aquatic life.

fresh, estuarine, and marine waters shall be less than those that

would require restrictions on the use of organisms harvested from

the area in order to meet the Radiation Protection Guides recommended

by the Federal Radiation Council.

Analyses to determine water quality sahll be based on the

U.S. Environmental Protection Agency manual entitled "Method for

Chemical Analysis of Water and Wastes," as revised and "Biological

Methods for Measuring the Quality of Water and Wastes" as revised,

or as otherwise previously specified or approved by the Director.

These water quality criteria are based upon the best currently available data. It is possible that studies planned to be made in connection with the implementation program may prove them to be either inadequate or unattainable. For this reason, they will be subject to periodic review and, where necessary, to change. Any change will be made only after public hearing, held in compliance with the Hawaii Administrative Procedure Act and the Rules of Practice and Procedure of the Department of Health.

# Section 7. ESTABLISHMENT, RENEWAL AND TERMINATION OF ZONES OF MIXING

by the director and shall be accompanied by a complete and detailed

description of present conditions, how present conditions do not

conform to standards, and such other information as the director may

prescribe by rules or regulations.

mixing

(b) Each application for a zone of / shall be reviewed in light of the

information as may be submitted upon the request of the director,

and the effect or probable effect upon the water quality standards

established pursuant to this chapter.

- (c) Whenever an application is approved, the director shall establish
  the zone of mixing taking into account protected uses of the body of water,
  existing natural conditions of the receiving water, character of the effluent, a
  the adequacy of the design of the outfall and diffuser system to achieve
  maximum dispersion and assimilation of the treated or controlled waste with a
  minimum of undesirable or noticeable effect on the receiving water.
- mixing
  (e) Approval of a zone of / shall be made only after a public hearing is

held by the director in the county where the source is situated in accordance with the Hawaii Administrative Procedure Act and the Rules of Practice and Procedure of the Department of Health.

mixing

(d) No zone of / shall be granted by the director unless the application

and the supporting information clearly show that:

1) The continuation of the function or operation involved in the

mixing discharge by the granting of the zone of / is in the public

interest;

2) The discharge occurring or proposed to occur does not sub-

#### stantially endanger human health or safety; and

3) Compliance with the existing water quality standards from

of mixing which a zone / is sought would produce serious hardships with out equal or greater benefits to the public;

4) The discharge occurring or proposed to occur does not violate the basic standards applicable to all waters, will not unreasonably interfere with an actual or probable use of the water areas for which it is classified, and has received the best practicable treatment or control or, in the case of a proposed discharge, will receive the best available demonstrated pollution control technology, processes and operating methods.

(f) Any zone of mixing or renewal thereof shall be granted within the re-

requirements of this section and for time periods and under conditions

consistent with the reasons therefor and within the following

### limitation:

mixing

1) If the zone of / is granted on the ground that there is no

practicable means known or available for the adequate prevention,

control or abatement of the discharge involved, it shall be

only until the necessary means for prevention, control, or

abatement become practicable and subject to the taking of any

substitute or alternate measures that the director may prescribe.

No renewal of/zone of mixinggranted under this subsection shall be

allowed without a thorough review of known and available means of preventing, controlling, or abating the discharge involved.

mixing

2) The director may issue a zone of / for a period not exceeding

five years.

mixing
3) Every zone of / granted under this section shall include conditions,
but not limited to,

requiring the grantee to perform effluent and receiving water sampling and

report the results of such sampling to the director, and a program of research to develop practicable alternatives to the methods of treatment or control in use by the grantee may be required if such research is deemed prudent by the Director.

Mixing

(g) Any zone of / granted pursuant to this section may be renewed from

time to time on terms and conditions and for periods not exceeding five years which would be appropriate on initial granting of a

zone of mixing; provided that the applicant for renewal has met all of the

conditions specified in the immediately preceding zone of mixing; and

provided, further, that the renewal, and the zone of mixing established in

in quantity of mass emissions

pursuance thereof, shall provide for discharge not greater/than that

attained pursuant to the terms of the immediately preceding zone of mixing

	at its expiration. No renewal shall be granted except on application
	therefor. Any such application shall be made at least sixty days
	prior to the expiration of the zone of mixing.
(h)	mixing No zone of / shall be granted unless the director finds that human
	health and safety will not be endangered thereby.
( <u>i</u> )	mixing No zone of / granted pursuant to this part shall be construed to
	하기 있는 것이 되었다. 그 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은
	prevent or limit the application of any emergency provisions and
	procedures provided by law.
(j)	The establishment of any zone of mixing shall be
	subject to the concurrence of the federal Environmental Protection
	Agency.
(k)	The director, on his own motion, or upon the application of any
	person, shall terminate a zone of mixing, if
	after a hearing, he shall determine that the water area does not meet
	그는 사람이 하지만 하는 것이 되었다. 이 경우를 하는 것이 없는 것이 없는 것이 없는 것이 없다.

the basic standards applicable to all water areas or that the zone of mixing granted will unreasonably interfere with any actual or probable use of the water area or that the discharge does not receive the best

practicable treatment or control or that the new discharge did not receive the best available demonstrated pollution control technology, processes and operating methods. Such termination shall be made only

after a hearing held by the director on the island where the area is

situated in accordance with the Hawaii Administrative Procedure Act

and the Rules of Practice and Procedure of the Department of Health.

Upon such termination, the standards of water quality applicable thereto

shall be those established for the water as otherwise classified.

Upon expiration of the period stated in the designation, the zone of mixing shall automatically terminate and no rights shall become vested in the designee.

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treatment or control. Such termination shall be made only after a hearing held by

the Director on the island where the area is situated in accordance with the Hawaii

Administrative Procedure Act and the Rules of Practice and Procedure of the

Department of Health. Upon such termination, the standards of water quality

applicable thereto shall be those established for the water as otherwise classified.]

Section [10.] 8. SEVERABILITY

If any provision of this Chapter, or its application to any person or circumstance, is held invalid, the application of such provision to other persons or circumstances, and the remainder of this Chapter, shall not be affected thereby.

Section 9. EFFECTIVE DATE

This Chapter shall be effective 60 days after approval by the Governor.